

# PATENT COOPERATION TREATY

## PCT

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REC'D 07 JUL 2000

WIPO PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>36968/176363</b>	<b>FOR FURTHER ACTION</b>		See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. <b>PCT/US99/06429</b>	International filing date (day/month/year) <b>24/03/1999</b>	Priority date (day/month/year) <b>24/03/1998</b>	
International Patent Classification (IPC) or national classification and IPC <b>H04Q7/22</b>			
Applicant <b>BELLSOUTH INTELLECTUAL PROPERTY CORPORATION et al.</b>			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.


2. This REPORT consists of a total of 5 sheets, including this cover sheet.

- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  <b>21/09/1999</b>	Date of completion of this report  <b>06.07.2000</b>
Name and mailing address of the international preliminary examining authority:   <b>European Patent Office</b> <b>D-80298 Munich</b> <b>Tel. +49 89 2399 - 0 Tx: 523656 epmu d</b> <b>Fax: +49 89 2399 - 4465</b>	Authorized officer  <b>Veaux, C</b>  Telephone No. <b>+49 89 2399 8820</b>



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US99/06429

**I. Basis of the report**

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

**Description, pages:**

1-17 as originally filed

**Claims, No.:**

1-19 as originally filed

**Drawings, sheets:**

1/4-4/4 as originally filed

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US99/06429

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes:	Claims	2-19
	No:	Claims	1
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-19
Industrial applicability (IA)	Yes:	Claims	1-19
	No:	Claims	

**2. Citations and explanations**

**see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/US99/06429

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement**

Document D1=US-A-5719918, cited in the international search report, discloses (see the passages cited in the search report), in accordance with the features of independent claim 1 of the present application, a

method for remotely monitoring or controlling activities within multiple facilities geographically dispersed within at least one wireless network adapted to transmit GSM short messages to allow the facilities to communicate with other terminals without making a wireless telephone call (see column 5, lines 57-63, as well as the passage cited on columns 14 and 15), the method comprising

- (a) providing the selected facility with a gateway comprising a processor, a transceiver and a SIM card adapted to transmit short messaging service messages (column 6, lines 31-33);
- (b) periodically causing the gateway to formulate a short message reporting on activities within the selected facility at which the gateway is located (column 6, lines 51-52);
- (c) transmitting the message over the GSM network via Short Messaging Centre coupled to a Mobile Switching Centre within the GSM network; and
- (d) receiving the message at a terminal selected from a group of devices consisting of a mobile station, a workstation and a central processor (see abstract).

Document D1 thus discloses all the features of independent claim 1, which thus does not fulfil the requirement of Article 33(2) and (3) PCT.

No single available prior art document discloses the combination of features of the other claims, which therefore comply with the requirement of novelty of Article 33(2) PCT.

Independent method claim 13 however merely defines a generalisation of the subject-matter of claim 1 and therefore does not involve an inventive step (Article 33(3) PCT).

Independent claim 8 merely defines a system adapted to perform a generalisation of the method of claim 1, without defining any feature which could be considered as inventive in the light of document D1.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/US99/06429

The additional features of the dependent claims are either already known from the documents cited in the international search report or matters of normal design. They consequently do not involve an inventive step (Article 33(3) PCT)

**VII. Certain defects in the international application**

The requirements of Rule 5.1(a)(ii) PCT are not met: Document D1 cited in the International Search Report is not identified in the description with the relevant background art disclosed therein being briefly discussed.

The requirements of Rule 6.3(b) PCT are not met: the independent claims are not properly cast in the two part form, with those features which in combination are part of the prior art (document identified in the description) being placed in the preamble.

No reference signs in parentheses have been inserted in the claims to increase their intelligibility, Rule 6.2(b) PCT.

The general statement in the description on page 17, line 24 refers to the "spirit of the invention". When used to interpret the claims, it indicates that the subject-matter for which protection is sought could differ from the subject-matter of the claims, thereby rendering the scope of the claims unclear (Article 6 PCT).

## PATENT COOPERATION TREATY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents  
United States Patent and Trademark  
Office  
Box PCT  
Washington, D.C. 20231  
ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

<b>Date of mailing</b> (day/month/year) 21 October 1999 (21.10.99)	
<b>International application No.</b> PCT/US99/06429	<b>Applicant's or agent's file reference</b> BS100/176363
<b>International filing date</b> (day/month/year) 24 March 1999 (24.03.99)	<b>Priority date</b> (day/month/year) 24 March 1998 (24.03.98)
<b>Applicant</b> WHITLEY, Kevin, T. et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:

21 September 1999 (21.09.99)

☐ in a notice effecting later election filed with the International Bureau on:
2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Jean-Marie McAdams

Telephone No.: (41-22) 338.83.38



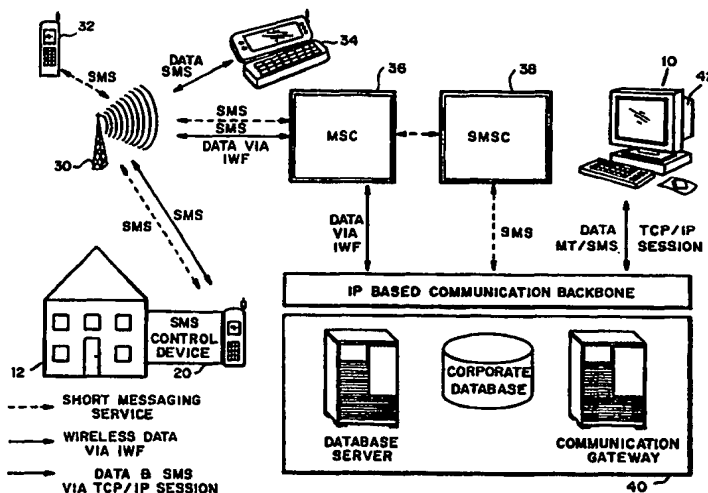
## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> : <b>H04Q 7/22, G08C 17/02, H04M 11/00</b>		A1	(11) International Publication Number: <b>WO 99/49680</b>
			(43) International Publication Date: 30 September 1999 (30.09.99)
(21) International Application Number: PCT/US99/06429 (22) International Filing Date: 24 March 1999 (24.03.99) (30) Priority Data: 60/079,215 24 March 1998 (24.03.98) US (63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application US 60/079,215 (CIP) Filed on 24 March 1998 (24.03.98) (71) Applicant (for all designated States except US): BELLSOUTH INTELLECTUAL PROPERTY CORPORATION [US/US]; Suite 510, 824 Market Street, Wilmington, DE 19801 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): WHITLEY, Kevin, T. [US/US]; 5030 Oak Hollow Drive, Acworth, GA 30102 (US). WARFEL, Karl, B. [US/US]; 1296 Pinehurst Road, Greyson, GA 30017 (US). SHAND, Arthur, M. [US/US]; 10881 Big Canoe, Big Canoe, GA 30143 (US). (74) Agents: PRATT, John, S. et al.; Kilpatrick Stockton LLP, Suite 2800, 1100 Peachtree Street, Atlanta, GA 30309-4530 (US).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.	

(54) Title: WIRELESS TELEMETRY METHODS AND SYSTEMS FOR COMMUNICATING WITH OR CONTROLLING INTELLIGENT DEVICES

## (57) Abstract

Methods and apparatus are disclosed for remotely monitoring and controlling via a wireless network various devices deployed in homes and businesses. The present invention allows for monitoring and control of various gateways distributed to remotely located facilities to be monitored and the devices coupled to those gateways to be controlled via a wireless communications network. Preferably, the network is a GSM network adapted to provide short messaging services or any type of wireless network adapted to operate a General Packet Radio System for delivering data over the network. Messages are packaged at each gateway for delivery via the network to a destination terminal, whether a fixed terminal or a mobile station. Likewise, customers may forward data and commands to a particular gateway either from a mobile station or by accessing a fixed terminal, such as through an Internet connection. Transporting messages or commands via the short messaging service of the GSM network or via the GPRS protocol avoids the prohibitive cost of setting up a call for each message and avoids the significant capital costs needed to set up a separate communication network for data delivery.



**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
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DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		



# INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 99/06429

#### A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 H04Q7/22 G08C17/02 H04M11/00

According to International Patent Classification (IPC) or to both national classification and IPC

### B. FIELDS SEARCHED

**Minimum documentation searched (classification system followed by classification symbols)**

IPC 6 H04Q H04M G08C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

### C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category :	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 719 918 A (SERBETCIOUGLU BEKIR ET AL) 17 February 1998 (1998-02-17). column 5, line 57 - column 6, line 67 column 14, line 59 - column 15, line 48 ---	1-19
X	DE 297 17 504 U (HELICOM ENTWICKLUNGSGES) 11 December 1997 (1997-12-11) page 1, line 19 - page 2, line 39 ---	1-4, 13-15 6,8-12, 19
A	EP 0 645 941 A (SEL ALCATEL AG ;ALCATEL NV (NL)) 29 March 1995 (1995-03-29) column 3, line 50 - column 5, line 56 ---	1-4, 8-17,19
	-/--	

**X**

Further documents are listed in the continuation of box C.

☒

Patent family members are listed in annex.

<sup>o</sup> Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

**"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone**

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

14 July 1999

Date of mailing of the international search report

20/07/1999

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Pham, P

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/06429

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>WO 95 24791 A (BELLSOUTH CORP)  14 September 1995 (1995-09-14)</p> <p>page 13, line 13 - page 16, line 34  page 34, line 32 - page 35, line 35  -----</p>	<p>1-4,  6-11, 13,  19</p>

# INTERNATIONAL SEARCH REPORT

Information on patent family members

Int. Application No

PCT/US 99/06429

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5719918	A	17-02-1998	NONE	
DE 29717504	U	11-12-1997	NONE	
EP 0645941	A	29-03-1995	DE 4332758 A	30-03-1995
WO 9524791	A	14-09-1995	US 5546444 A	13-08-1996
			AU 682208 B	25-09-1997
			AU 7555594 A	25-09-1995
			BR 9408553 A	19-08-1997
			CA 2185230 A	14-09-1995
			CN 1145711 A	19-03-1997
			EP 0753230 A	15-01-1997
			JP 10500262 T	06-01-1998
			NZ 271792 A	29-01-1997
			US 5526401 A	11-06-1996
			US 5794144 A	11-08-1998

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>BS100/176363</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/US 99/ 06429</b>	International filing date (day/month/year) <b>24/03/1999</b>	(Earliest) Priority Date (day/month/year) <b>24/03/1998</b>
Applicant <b>BELLSOUTH INTELLECTUAL PROPERTY CORPORATION et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1  
☐ None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/06429

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 H04Q7/22 G08C17/02 H04M11/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 H04Q H04M G08C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

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A	EP 0 645 941 A (SEL ALCATEL AG ;ALCATEL NV (NL)) 29 March 1995 (1995-03-29) column 3, line 50 - column 5, line 56 ---	1-4, 8-17,19
	--- -/--	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents :

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"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&amp;" document member of the same patent family

Date of the actual completion of the international search

14 July 1999

Date of mailing of the international search report

20/07/1999

Name and mailing address of the ISA

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Authorized officer

Pham, P